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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CORDRAY, DENNIS R

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 12/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/813,957	STEPHENS ET AL.	
	Examiner	Art Unit	
	Dennis Cordray	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 4, 6-8 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al (5562740) in view of Neogi et al (US 2003/0208859) and further in view of Sprang et al (5571604).

Cook et al discloses crosslinked cellulosic fibers and a process for making the fibers comprising: applying a citric acid crosslinking agent and a crosslinking catalyst to a web of fibers, separating the web into individualized fibers, heating the individualized fibers to provide individualized crosslinked fibers, and bleaching the crosslinked fibers using hydrogen peroxide and sodium hydroxide. (abstract; col 13, lines 22-25). Cook also discloses the use of sodium hypophosphite as a crosslinking catalyst (col 12, lines 28-30). Cook further discloses that the fibers can be used to form absorbent products such as diapers, feminine care products, and tissues (col 17, lines 30-35).

Cook does not disclose the use of a whitening agent.

Neogi et al teaches that consumer preference is for a whiter product and that bleaching as well as the addition of small amounts of blue colorant to improve whiteness is known in the art of papermaking (pars 2 & 4). Neogi also discloses the use of any of a variety of blue dyes (such as Pergasol Blue PTD, which the instant

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disclosure teaches is a blue azo dye) as suitable colorants for whitening fluff pulp (par 28). Neogi does not teach that the blue dye is added to the formed web.

Sprang et al teaches that chemical additives, such as pigments, dyes or crosslinking agents, can be added to a fibrous web (col 7, lines 31-44).

The art of Cook et al, Neogi et al, Sprang et al and the instant invention are analogous in that they are from the art of making fibrous absorbents. It would have been obvious at the time the invention was made to a person with ordinary skill in the art to add a blue azo dye to the formed web to increase whiteness of the fibrous product in the process of Westland et al in view of Neogi et al and further in view of Sprang et al to make the product more preferable to customers.

3. Claims 2, 9-11 and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al, Neogi et al and Sprang et al, as applied to claims 1, 3, 4 and 6-8 above, and further in view of von Raven (5482514).

Cook et al, Neogi et al and Sprang et al do not disclose that fibers treated with a whitening agent and a bleaching agent are whiter than fibers not so treated. Cook et al, Neogi et al and Sprang et al also do not teach that bleaching is done after a dye is added.

Von Raven shows that paper making fibers treated with both a whitening agent and a bleaching agent are whiter than those that are not bleached (col 4, lines 58-60). Von Raven also claims that bleaching can be done before, during or after dyeing in the process (claim 15).

The art of Cook et al, Neogi et al and Sprang et al, von Raven et al and the instant invention are analogous as they pertain to the treatment of fibers.

It would have been obvious at the time the invention was made to a person with ordinary skill in the art to add a blue azo dye as one of a variety of possible choices to the formed web and to bleach the crosslinked fibers to increase whiteness of the fibrous product in the process of Cook et al in view of Neogi et al and Sprang et al and further in view of von Raven et al to make the product more preferable to customers.

4. Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al, Neogi et al, Sprang et al, and von Raven as applied to claims 1-4 and 6-11 above, and further in view of von der Eltz et al (5512064).

Cook et al, Neogi et al, Sprang et al and von Raven do not disclose the use of an azo metal complex dye as a blue dye.

Von der Eltz et al teach that azo dyes and azo metal complex dyes are well known art and are completely familiar to one skilled in the art (col 5, lines 10-19). In the absence of limiting parameters not revealed in the current disclosure it would have been obvious at the time the invention was made to a person with ordinary skill in the art to add a blue azo metal complex dye as one of a variety of possible choices to the formed web to increase whiteness of the fibrous product in the process of Cook et al, Neogi et al, Sprang et al and von Raven and further in view of von der Eltz et al to make the product more preferable to customers.

Double Patenting

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The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1, 3-6, 9-14 and 17-19 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-14 of copending Application No. 10/815159 in view of Neogi et al and further in view of von Raven.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the referenced claims of the instant invention are fully encompassed by the claims of the copending application.

- Claim 1 of the copending application is a product by process claim and thus emphasizes the product, whitened crosslinked cellulosic fibers, which become the fibers claimed in the instant invention with the application of a bleaching agent. The language of Claim 1 of the copending application (i.e.-comprising) does not preclude the use of a bleaching agent. Neogi et al discloses that bleaching is a common method for increasing whiteness and that a whiter product is preferable to customers. It would have been obvious to one with ordinary skill in the art to modify

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Claim 1 of the copending application to include bleaching the claimed fibers of 10/815159 to improve the whiteness and enhance customer appeal of the product as per the teachings of Neogi et al.

- Claims 3-6 of the instant invention read the same as claims 2-5 of the copending application after appropriate changes in the referenced claim numbers.
- The language of Claim 6 of the copending application does not preclude the use of a bleaching agent as specified in Claim 9 of the instant invention and, other than the additional step in Claim 9 of applying a bleaching agent, the claims read identically. Neogi et al discloses that bleaching is a common method for increasing whiteness and that a whiter product is preferable to customers. Von Raven discloses that bleaching can occur after crosslinking of a fibrous material. It would have been obvious to one with ordinary skill in the art to modify Claim 6 of the copending application to include a bleaching step after crosslinking to improve the whiteness and enhance customer appeal of the product as per the teachings of Neogi et al and von Raven.
- Claims 10-14 of the instant application read the same as Claims 7-11 of the copending application after appropriate changes in the referenced claim numbers.
- Claims 17-19 of the instant application read the same as Claims 12-14 of the copending application after appropriate changes in the referenced claim numbers.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

Applicants' arguments filed 14 November, 2005 have been fully considered but they are not persuasive. The reasons are as follows:

Rejection of Claims Under 35 U.S.C. §103(a)

Applicants have argued that the Neogi reference cannot be used as prior art against the instant application pursuant to 35 U.S.C. §103(c)(1) because it is a §102(e) reference with respect to the present application and, like the present application, is assigned to Weyerhaeuser Company. However, the Neogi reference is a valid reference under 35 U.S.C. §102(a) and thus can still be used in a rejection under 35 U.S.C. §103(a).

With regard to the rejection of Claims 1,3,4,6-8 and 17-19, applicants argue in the first paragraph of page 5 that there is no motivation to combine the colorant described in the Sprang et al. reference with the crosslinking and bleaching process described in the Cook reference.

Sprang et al discloses that crosslinking agents, dyes and/or pigments may be added to the web to impart desirable properties to the composite (col 7, lines 39-45). Since Sprang et al envisions applying dyes or pigments to crosslinked fibers, a person of ordinary skill in the art would be motivated to combine the teachings of Cook et al in view of Neogi et al and further in view of Sprang et al to improve the whiteness of the product.

With regard to the rejection of Claims 2, 9-11 and 13-16, applicants argue in the last paragraph of page 5 and onto page 6 that the von Raven reference is directed to

the use of photoactivators to improve whiteness and teaches away from adding a blue dye to improve whiteness.

The von Raven reference discloses the use of bleaching and photoactivators to improve whiteness. Suitable photoactivators can be dyes that have a photodynamic effect and include methylene blue and phthalocyanines (some of which are blue dyes) (col 2, lines 17-35). Thus the reference does teach using blue dyes.

As stated in the rejection above, Neogi et al teaches that consumer preference is for a whiter product, that "Countless studies suggest that consumers clearly favor a blue-white over a yellow-white color," that a product's whiteness can always be extended beyond that achievable with bleaching alone by judicious addition of a colorant, and that bleaching as well as the addition of small amounts of blue colorant to improve whiteness is known in the art of papermaking (pars 2-4). Neogi also discloses the use of any of a variety of blue dyes (such as Pergasol Blue PTD, which the instant disclosure teaches is a blue azo dye) as suitable colorants for whitening fluff pulp (par 28). As applicants have argued on page 6, the von Raven reference teaches in the background discussion that adding a blue dye to reduce the yellowness of fibers is known, but that the whiteness of the fibers can decrease. Von Raven does not discuss the amount of blue dye added to the fibers that results in decreased whiteness. Von Raven does disclose that an amount of photoactivator added to achieve an improvement in whiteness is normally from 0.0001 to 0.1% based on the amount of papermaking fibers used (col 2, lines 4-6). While a "small" amount of blue dye may improve whiteness, it is obvious that continued addition of blue dye would eventually

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result in a stronger blue color and decreased whiteness. It would be obvious to a person of ordinary skill in the art, from the teachings of Neogi and von Raven that the amount of blue dye added is critical.

Regarding the rejection of Claim 9, applicants argue that the Sprang reference describes chemical post-treatments that may be added to a web, those treatments including dyes and pigments to impart or enhance desirable properties, and that the reference fails to suggest wet end treatment as in the claimed invention. Claim 9 of the instant invention recites "applying a whitening agent, crosslinking agent, and optionally a crosslinking catalyst to a web of pulp fibers to provide a web of treated fibers;" followed by additional steps. As stated in the rejection, Sprang et al teaches that chemical additives, such as pigments, dyes or crosslinking agents, can be added to a fibrous web (col 7, lines 31-44). Sprang et al also disclose that an advantage is realized by not adding the additives in the furnish (col 7, lines 49-52). Sprang et al thus envisions that the post-treatment can occur at any point after the web is formed (for instance, before the steps of separating the web of treated fibers into individualized treated fibers, heating the fibers to provide crosslinking, and applying a bleaching agent to the crosslinked fibers). In the rejections above, the Sprang reference was only used to teach that pigments, dyes or crosslinking agents can be added to a formed fibrous web as opposed to the furnish.

With regard to the rejection of Claims 5 and 12, applicants argue that the von der Eltz reference relates to textiles and fabrics and fails to relate to the instant invention. The von der Eltz reference is used to teach that azo metal complex dyes are fiber

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reactive and are completely familiar to one skilled in the art (col 5, lines 10-19). As part of a well known class of dyes, it would be obvious to one skilled in the art to use an azo metal complex dye for a blue dye as a functional equivalent.

With regard to the provisional obviousness-type double patenting rejection, applicants' intention to file a terminal disclaimer on the Examiner's indication of allowable subject matter is noted.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Cordray whose telephone number is 571-272-8244. The examiner can normally be reached on M - F, 7:30 -4:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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